

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007414**Date Inspected:** 30-May-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Yun Xiao, Mr. Li Ming

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

Tower Bay 11

The QA Inspector observed ZPMC welder Ms. Yang Meizhen, stencil 042195 using submerged arc welding procedure specification WPS-B-T-2221-C-U2C-S to make groove weld WSDI-A423 B/L-5A. The QA Inspector observed Quality Control personnel monitoring the base material temperature and other welding attributes. This QA Inspector measured a welding current of 640 amps and 32.0 volts. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

The QA Inspector observed ZPMC welder Ms. Shen Mei, stencil 041716 using submerged arc welding procedure specification WPS-B-T-2221-C-U2C-S to make groove weld WSDI-A423 B/L-5A. The QA Inspector observed Quality Control personnel monitoring the base material temperature and other welding attributes. This QA Inspector measured a welding current of 670 amps and 32.0 volts. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

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The QA Inspector observed ZPMC welder Ms. Cao Gui Mei, stencil 047034 using submerged arc welding procedure specification WPS-B-T-2221-C-U2C-S to make groove weld WSDI-A423 B/L-4A. The QA Inspector observed Quality Control personnel monitoring the base material temperature and other welding attributes. This QA Inspector observed QC Inspectors had measured a welding current of 670 amps and 32.0 volts. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

Tower Bay 10

The QA Inspector observed ZPMC welder stencil 040324 is using welding procedure specification WPS-B-T-2211-B-U3B to deposit shielded metal arc weld SSD1-FESA4-A/H-9A. The QA Inspector observed that a ZPMC QC Inspector is monitoring this welding. The QA Inspector measured a welding current of approximately 150 amps and the welding electrodes are being stored in a heated container. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

OBG Bay 2

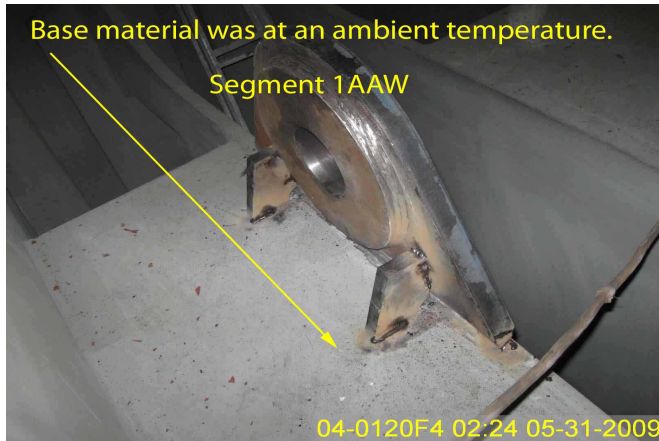
The QA Inspector observed ZPMC welder Mr. Xu Fubao, stencil 200569 had just completed a tack weld Segment 1AAW in OBG bay 1 without any ZPMC certified welding Inspectors (CWI) monitoring of the welds. The base material where the temporary and permanent welds were made appear to be at an ambient temperature and the primer paint has not been removed prior to depositing some of the welds. It appears that similar welds were made in Segment 1AAE without being monitoring by any ZPMC CWI Inspectors. The QA Inspector attempted to communicate with the Mr. Xu Fubao to inform him that the base materials where he had welded should be preheated prior to welding, the paint should be removed where he is going to weld and that a CWI needs to be monitoring this welding. Mr. Xu Fubao did obtain a torch to preheat the base material, but two hours later when QA Inspectors monitored this area no ZPMC CWI appears to be monitoring this location. The QA Inspector issued an incident report to document these violations. The QA Inspector used the following references on the incident report: Applicable reference:

- ZPMC welding procedures require base materials to be preheated above ambient temperature.
- Special Provisions, Section 8-3.01; "QC inspections shall be provided to ensure continuous inspection when any welding is being performed. Continuous inspection, as a minimum, shall include (1) having QC Inspectors continually present on the shop floor or project site when any welding operation is being performed, and (2) having a QC Inspector within such close proximity of all welders or operators so that inspections by the QC Inspector of each operation, at each welding location, shall not lapse for a period exceeding 30 minutes."

See the photographs below for additional information concerning this incident report.

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Summary of Conversations:

See above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
